

### GENERAL COMMENTS:

1. As a stand-alone document, the EA provides limited technical details and is weakly referenced. If the EA is deferring to the RI/FS reports as the major decision-making documents, then it should be specifically and boldly stated in the front of the EA.
2. Insufficient data are presented to adequately review the technical merits of the proposed action or the alternatives.
  - o There are no characterization data presented which would allow the reader to evaluate potential source terms.
  - o Technical data is lacking on the nature and extent of present contamination of both soils and ground-water.
  - o Is buried waste involved; did they look for it? Where did the contaminants in the groundwater come from? If buried waste is involved, then there is a continuous source for groundwater pollution and pumping and disposal via a leach field could increase pollution.
  - o Aquifer characterization is lacking and ground-water data are minimal.
  - o The contaminants were not adequately identified in the document. Radioactive species and heavy metals were not treated adequately; in fact, the reader could perceive they were basically ignored.
  - o There was no data presented on the characteristics and operational performance of the H<sub>2</sub>O<sub>2</sub>/UV system. Likewise, data on other processing systems is missing making it unclear to the reader why the H<sub>2</sub>O<sub>2</sub>/UV system was selected.
3. The document suffers from trying to be both a NEPA and CERCLA document, consequently, neither area was addressed adequately. The EA hands off (casually) to draft feasibility study and remedial investigation reports as the basis for determining the risks and the potential impacts involved in the proposed actions. It is inappropriate to hand off to draft documents not only because the document or report has not been approved, but, more importantly, because the data in the draft may be suspect.

A Consent Order Compliance Agreement (COCA) is implied or mentioned in the document but not adequately discussed. SARA addresses the issue of "how clean is clean" but this issue is not discussed in the document. SARA requires remedial actions to at least attain, for ground-water and surface water, the maximum containment level goals established under SDWA and water quality criteria under the CWA. Again, this is not discussed in the document nor does it come across that these issues have been adequately considered in the planning.

4. Although these reviewers did not have either the RI or FS reports, we have reason to be suspicious of the data in these reports. The basis for this suspicion is as follows:
  - o Data on contaminants in surface waters were determined from two locations at one point in time. Conditions at the time of collection were not described. It would have been much more appropriate to collect sediment samples rather than water samples, but none were reportedly taken.
  - o Concentrations of volatile organics as vapors were determined using Draeger Tubes of unknown kinds and numbers. No airborne particulate samples were reportedly collected.
  - o Soil contamination data are very confusing. It is unclear if soil contamination is viewed as a problem requiring corrective action. Statements on soil contamination are confusing to the reader. The planned actions with respect to disturbed soils should be more fully discussed and evaluated. Diagrams of soil contamination locations and concentrations would be helpful.
  - o Concentrations of volatile organics in soils were determined from composited samples from 13 boreholes. Compositing can (and usually does) result in significant losses of volatile organics.
  - o The ground-water flow regime was not adequately described so the placement of wells could not be evaluated.
5. The EA lacks any overall conclusions as to the impacts of the proposed action and reasons for rejecting alternatives. At least one alternative (french drain and soil flushing) appears to have advantages over the proposed action, and one potentially viable and commonly used technology for organic destruction (air stripping/carbon absorption) is not even presented as an alternative processing method. Consequently, the EA seems to be forcing the reader to the proposed action rather than allowing the data to get you to a logical conclusion.
6. The use of undefined qualitative terminology (i.e., "low", "very low", "marginal", "significant", "not significant", etc.) is widely used and should be eliminated to the extent possible. In many cases, this may be accomplished through rewording or through use of a quantitative reference point (e.g.,  $10^{-6}$  cancer risk for carcinogens can be used as a cut-off for acceptable vs unacceptable risk). In addition to qualitative terminology, the EA is very weakly referenced when technical details are presented. These two items greatly weaken the overall impact of the document.

7. The discussion of regulatory requirements is very weak. The EA should reference the RI/FS reports where these regulatory requirements have been thoroughly discussed or they should be discussed thoroughly in the EA. Additional regulatory requirements that should be addressed include:

- o air emission permitting
- o RCRA/SARA permitting
- o well injection permit (Does return of treated water to the aquifer require a permit? What sampling/monitoring will be required by the State/EPA for treated water?)
- o compliance agreements with State/EPA
- o others TSCA, SDWA, CERCLA, etc..

In addition, a single day visit by one person should not be used as the sole basis for claims regarding endangered species.

8. The Environmental Effects section is also quite weak and didn't make a significant statement. This section could be more of a plan by Rockwell to eliminate any potential environmental effects. For example, the data could be discussed in terms of the proposed action and alternatives and then discuss the potential for various types of environment effects. Then the EA should discuss what preventive measures will be taken to reduce or eliminate these effects which are considered significant.
9. Overall the EA needs many more maps, diagrams and figures to assist the reader in understanding the hydrology, geology, surface features, well locations, contaminated areas, waste sites, SWMUS, frenchdrain, leach field, RFP site, population areas, etc. These would greatly assist the reader in being able to follow the logic in selecting the preferred alternative.
10. There has been some casual use of terminology which causes confusion for the reader. Hazardous waste, hazardous materials, and contaminants are inappropriately used interchangeably throughout the report. Potentially impacted populations are referred to as on-or off-site workers and non-workers. These populations, however, are never discussed or characterized in detail. It becomes unclear, for example, what percentage of RFP employees would be working down-gradient (air and water) from the project, and how far away are these personnel.

11. Referenced sections do not always contain the information cited. For example, on page 3-5 there is reference to Section 5.5 as containing further information on inorganics. Similarly, page 5-1 references Section 5.5 as containing information or regulatory limits. Neither of these two references are accurate.
12. In the summary, it is stated that "no transportation of hazardous material is required by the proposed action". The proposed process method involves relatively large consumption of peroxide which is a "hazardous material" (strong oxidizer). This is a significant inaccuracy or it returns to item 10. regarding casual usage of terminology.
13. The entire EA is extremely lacking in its treatment of radioactive species without providing the reader with adequate justification for this approach. Further confusion exists as the FS contains significant data on radioactive species being identified on the 881 Hillside Site. The data and quantitative logic needs to be presented to the reader as to why it is justifiable to exclude radioactive species.
14. The last paragraph needs to be implemented by the EA. It states that the purpose of the EA is to determine if the proposed action is a major federal action. Nowhere in the report does it conclude that this proposed action is not a major federal action and therefore does not require an environmental impact statement. It also should state that this action poses no significant environmental impact if that is the case.

## SPECIFIC COMMENTS BY SECTION

### I. Summary

Typically in an EA, this is an executive summary which summarizes all the sections of the document. This section would have to be beefed up considerably to accomplish that. This section is mostly a conclusion section based, erroneously perhaps, on the FS report. Need statement of purpose up front - see text.

Third paragraph - here and in other sections of the report (pp 2-2, 6-20) there is confusion on what is and is not being transported. Hazardous materials will be transported for every scenario - hydrogen peroxide is a hazardous material. Environmental samples could be hazardous materials see comments in text.

### II. Introduction

Page 1-1 Need a figure here showing the Rocky Flats Plant and regional relationships. Confusing discussions of Building 881, portions of 881 Hillside, and various dump sites. Need clearer discussion with figure showing areas covered by proposed action.

Fourth paragraph - mentions a compliance agreement but does not cite reference or discuss the characterization studies.

Page 1-2 First paragraph - some confusion again on what constitutes 881 Hillside - see comments in text.

Second paragraph - states that the RI/FS and the Compliance Agreement concluded that the proposed action and alternatives were appropriate. Need to reference the Compliance Agreement or attach as appendix - the RI/FS is a draft and should be so stated. As far as I know it is not approved so it is just another proposal.

Third paragraph - revise this paragraph - see comments in text also see NIPA and CIEA reference attached to summary.

### III. Purpose, Need and Scope

Section 2.1 Confusion again on Building 881 and the 12 SWMUS on 881 Hillside? Need figure and add references.

Section 2.1.1 Mentions evidence of hazardous material problem - what is the problem? Is something over regulatory limits? If so, what and where? Confusing and misleading discussions of risk. There is not sufficient evidence to say there has been no migration off-site. That plus the last sentence of the paragraph leaves me suspicious.

Section 2.1.1 Purpose weak - last two sentences don't add to purpose. A purpose may be to bring facility under compliance and meet NEPA intent.

Section 2.2 Last paragraph - NEPA requires that cumulative impacts be addressed. In addition, what hazardous waste may be shipped? A discussion of this needs to be in this document clearly outlining what the plan is. This section needs to identify scope. More details on what is being evaluated.

#### IV. Description of Proposed Action and Alternatives

Section 3.1 This section is confusing. I believe I've figured it out but it would help to have a figure showing ground water flow regimes and an explanation and description of how all the facilities fit together to accomplish the goals. There are few details presented to allow the reader to assess the magnitude of the actions.

Page 3-1 Paragraph 2 & 3 Contaminants are mentioned but not identified. What is meant by "evacuating contaminants from the area" in paragraph 3?

Page 3-3 Paragraph 2 The treatment technology is fine for volatile organics. What about semi-volatiles, metals, and rad?

Paragraph 3 - What is involved in establishing leach field. Some estimate of the quantity of water involved should be presented. Are the possibilities of this leach field causing more harm than good ever discussed?

Section 3.2 Uitrification of what/soil flushing - what is some term?

Section 3.3 Paragraph 3-5 (ii) Have the applicable or relevant and appropriate federal public health and environmental requirements been identified. If so, reference the location. They should be discussed in this document.

Last paragraph - mentions volatile organics and metals. What about other organics and rad? It mentions that this topic is examined in detail in Section 5.5; however, the relevant details are not provided in that section. (See comments in text)

#### V. Affected Environment

4.1 This section is incomplete - needs section on ecology.

Paragraph 4.1 A map showing relationship to land use and surface features would be useful. What is the relationship between surface runoff on-site to off-site drainages?

Page 4-2 Add information on ground-water. What are the depths to the ground-water bodies. What is the flow rates and directions? What is the relationship to off-site uses?

4.2 This section is inadequate. Needs discussion of CERCLA, SARA, COCA, RCRA, TSCA, SDWA, CAA, CWA. Also need to describe somewhere how the site currently demonstrates compliance - monitoring programs with some results. What are existing conditions?

## VI. Environmental Effects of the Proposed Action

Section 5.1 Resuspension of contaminated airborne particulates should be addressed here. There is potential for both on-site and off-site exposure and off-site impacts to the environment. What about accidents?

Page 5.2 Third paragraph - confusing. It says with the exception of a french across 119.1 excavations will be in uncontaminated soils and then says soils in 119.1 are not contaminated by volatiles. What are they contaminated with? I can't believe with the extent of excavation included for the french drain and leach fields that there isn't any other soil contamination involved. But again, it would help to have the data on characterization of contaminants presented so the locations and concentrations of contaminants at the site could be seen.

Section 5.3 and 5.4 The effects on land use of the surrounding area needs to be briefly discussed.

Section 5.5 Page 5-3 States that workers will be protected, as SARA requires, by the Hazardous Waste Operating and Emergency Response Standards in addition to OSHA's General Industry and Construction Standards, and DOE's Safety and Industrial Hygiene Practices.

Page 5-4 Some of this information on contaminants in soil is misleading if you believe what is in the FS document. Organics and other radionuclides besides uranium were found in soils.

5.6 Page 5-12 Misleading. Dewatering could lead to exposure of workers and with flash flood could lead to exposure to non-workers. This section does not seem to be well thought out. What about accidents involving hydrogen peroxide? What about floods?

Section 5.8 Page 5-15 There will probably be on-site and off-site transport of contaminated materials. Hazardous materials will be generated as a result of testing and decontamination activities. If contaminated soils are discovered are they going to be distributed over the area?

Section 5.9 Paragraph 1 What is this interception ditch? Is contaminated water discharged to creek? If so, what quality standards need to be addressed.

Paragraph 2 Are HTO or other radionuclides considered in exposures to workers?